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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference /	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/GB 03/00250	International filing date (day/month/year) 24.01.2003	Priority date (day/month/year) 24.01.2002
International Patent Classification (IPC) or both national classification and IPC B66C1/34		
Applicant DALGARNO, Stewart et al.		
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 4 sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of 3 sheets.</p>		
<p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> I <input checked="" type="checkbox"/> Basis of the opinion II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application 		
Date of submission of the demand 07.08.2003	Date of completion of this report 24.02.2004	
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 23999 - 0 Tlx 523656 epmu d Fax +49 89 23999 - 4465	Authorized Officer Blumenberg, C Telephone No. +49 89 23999-2893 	

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**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**International application No. **PCT/GB 03/00250****I. Basis of the report**

1. With regard to the elements of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 71.17).*)

Description, Pages

1-14 as originally filed

Claims, Numbers

1-19 received on 19.12.2003 with letter of 19.12.2003

Drawings, Sheets

1/3-3/3 as originally filed

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**International application No. **PCT/GB 03/00250**

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability, citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-19
	No: Claims	
Inventive step (IS)	Yes: Claims	1-19
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-19
	No: Claims	

2. Citations and explanations

see separate sheet

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/GB03/00250

Re Item V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. The solution proposed in claims 1-19 of the present application can be considered as being novel (Article 33(2) PCT) for the following reasons.

1.2. With respect to claim 1:

Document US-A-3,056,624, which is considered to represent the most relevant state of the art, discloses particularly in figure 5 and the corresponding description a release hook for selectively releasing a load support on the hook comprising:

- a) a pad-eye for connecting the hook to a crane,
- b) an ejector lever for releasing the load from the hook upon actuation of the ejector lever, wherein
- c) actuation of the ejector lever is provided by a motor (57) and gearing (38,39) located adjacent the ejector lever.

The concept, that the motor and the gear means move the ejector lever upwards towards the pad-eye to eject the load, is neither suggested nor rendered obvious by the available prior art.

- 2. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the document US-A-3,056,624 is not mentioned in the description, nor is this document identified therein.
- 3. The description is not in conformity with the claims as required by Rule 5.1(a)(iii) PCT.
- 4. The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).

1 CLAIMS

2

3 1. A release hook for selectively releasing a load
4 supported on the hook, the hook including a pad-eye
5 for connecting the hook to a crane and an ejector
6 lever for releasing the load from the hook upon
7 actuation of the ejector lever characterised in that
8 actuation of the ejector lever is provided by a motor
9 and gearing means located adjacent the ejector lever
10 which move the ejector lever upwards towards the pad-
11 eye to eject the load.

12

13 2. A release hook as claimed in Claim 1 wherein the
14 motor is remotely operated.

15

16 3. A release hook as claimed in Claim 1 or Claim 2
17 wherein the motor is an electric motor driven from a
18 battery located in the hook.

19

20 4. A release hook as claimed in any preceding Claim
21 wherein the hook comprises a housing having two
22 interconnected generally 'C' shaped sections with the
23 ejector lever being located at a base of the 'C'
24 between the sections.

25

26 5. A release hook as claimed in Claim 4 wherein the
27 sections are bolted together.

28

29 6. A release hook as claimed in any preceding Claim
30 wherein the hook includes a catch.

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AMENDED SHEET

- 1 7. A release hook as claimed in Claim 6 wherein the
2 catch comprises an elongate member attached to the
3 ejector lever.
4
- 5 8. A release hook as claimed in Claim 7 wherein the
6 elongate member and the ejector lever are oppositely
7 opposed on a pivot.
8
- 9 9. A release hook as claimed in any preceding Claim
10 wherein the gearing means comprises a rack and
11 pinion.
12
- 13 10. A release hook as claimed in Claim 9 wherein the
14 pinion is operable via the motor and the rack is
15 located on the ejector lever.
16
- 17 11. A release hook as claimed in any one of Claims 1 to 8
18 wherein the gearing means comprises a worm gear.
19
- 20 12. A release hook as claimed in Claim 11 wherein the
21 motor turns the worm whose screw thread is located
22 against matching notches on an edge of the ejector
23 lever.
24
- 25 13. A release hook as claimed in Claim 8 wherein the
26 gearing means comprises a drive sprocket, driven by
27 the motor to rotate the ejector lever.
28
- 29 14. A release hook as claimed in Claim 13 wherein the
30 gearing means rotates the catch with the ejector
31 lever.
32

AMENDED SHEET



1 15. A release hook as claimed in any preceding Claim
2 wherein the pad-eye includes an eye-let aperture such
3 that a link may be made between the pad-eye and a
4 crane block of a crane.

5
6 16. A release hook as claimed in any preceding Claim
7 wherein the pad-eye comprises a shaft including
8 connection means to a crane block.

9
10 17. A release hook as claimed in Claim 16 wherein the
11 connection means is a screw thread on the shaft to
12 match a threaded recess in the crane block.

13
14 18. A release hook as claimed in any preceding Claim
15 wherein the pad-eye is swivel mounted on a top of the
16 hook.

17
18 19. A release hook as claimed in any one of Claims 16 to
19 18 wherein the pad-eye includes a base of greater
20 diameter than the shaft, such that the base is
21 retained between the two sections of the housing
22 while remaining rotatable with respect to the
23 housing.

24

AMENDED SHEET



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